## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017750 Address: 333 Burma Road **Date Inspected:** 28-Oct-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zhu Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

#### OBG TRIAL ASSEMBLY YARD

## Segment # 10AW

During the Quality Assurance Inspector Magnetic Particle Testing (MPT) Verification inspection of welds located on Orthotropic Box Girder (OBG) Segment 10AW, this Quality Assurance Inspector (QA) discovered the following issue: one (1) longitudinal Linear Indication measuring approximately 6mm in length. The weld is identified as SEG059E-028. The weld is Complete Joint Penetration (CJP) groove "T" joint. The weld joint is located between Deck Plate to Stiffener Piece Mark (PCMK) No. X3S. The weld is designated as a Non Seismic Performance Critical Member (Non-SPCM). The indication is clearly marked near the cope hole of the weld. Segment 10AW is located on the backside of Bay#14. The Notice of Witness Inspection (NWIT) No. is 07135. This indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. See attached Photo for further details.

This QA inspector did not generate an incident report on this date as per the direction of Lead Inspector Mr. Albert

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

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**WELDING** 

## Segment # 11BW ~ 11CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040611 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SP682-001-071; located On Orthotropic Box Girder (OBG) Side Plate I-Rib to I-Rib CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2213-B-U2-FCM-1. See attached photo for further details.

## Segment # 11BW ~ 11CW

This QA Inspector observed ZPMC qualified welding personnel identified as 049502 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG067A-044; located On Orthotropic Box Girder (OBG) Side Plate to Bottom Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-B-U2-FCM-1

## Segment # 11BW ~ 11CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040609 perform Flux Core Arc Welding (FCAW), weld joint identified as SEG069B-009; located On Orthotropic Box Girder (OBG) Longitudinal Diaphragm to Floor Beam Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-TC-U4b-FCM-1.

#### Segment # 11BW ~ 11CW

This QA Inspector observed ZPMC qualified welding personnel identified as 041713 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP679-001-018; located On Orthotropic Box Girder (OBG) Deck Plate to I-Rib Hold Back Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-4114-1.

NDT:

Segment # 10AW

This QA Inspector performed Magnetic Particle Testing (MPT) Verification inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations verified are as follows.

SEG059E-048, 046, 039, 037.

SEG059D-064, 062, 154, 152.

Nondestructive testing (NDT) notification No. 07135

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Segment # 10AW

This QA Inspector performed Magnetic Particle Testing (MPT) Verification inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations verified are as follows.

SEG059E-028, 030

Nondestructive testing (NDT) notification No. 07142

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.





## **Summary of Conversations:**

no significant conversations were reported on this date

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhune, Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer